

# The Model of “Post, Course, Competition, Certificate” Integrated Education for Electronic Information Engineering Technology Major in Higher Vocational Colleges

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**Abstract:** The core education function of higher vocational colleges is to train technical talents with high quality, so as to meet the needs of talents in the development stage of our society. Under the guidance of talent training, higher vocational colleges need to pay attention to establishing an all-round and three-dimensional education model, and promote innovation of higher vocational education on the basis of this. It is also a way to promote the innovation of higher vocational education to vigorously promote the construction of “post, course, competition, certificate” mode in the construction of education mode. Through the construction of “post, course, competition, certificate” mode, the education mode of higher vocational colleges is gradually improved, so as to strengthen the effectiveness of talent training in higher vocational colleges. Therefore, in this paper, the author puts forward some suggestions to promote the construction of the integrated education mode of the electronic information engineering technology major in higher vocational colleges, so as to help improve the talent training level of higher vocational colleges.

**Keywords:** Higher vocational education; Electronic information engineering technology major; “Post, course, competition, certificate”; Integrated education model

**Online publication:** June 6, 2024

## 1. Introduction

In order to promote the innovation and reform of the education mode of electronic information engineering technology major in higher vocational colleges, it is necessary to vigorously build up the integrated education mode of “post, course, competition, certificate,” promote the innovation and reform of higher vocational education through the “post, course, competition, certificate” integrated education mode, and effectively cultivate students’ comprehensive quality <sup>[1]</sup>. Therefore, it is necessary to deeply explore and study how to effectively promote the construction of the integrated education model of “post, course, competition, certificate” in the electronic information engineering technology major of higher vocational colleges, so as

to drive the continuous innovation of the education model of higher vocational colleges, give full play to the education function of higher vocational colleges, and deliver a steady stream of high-quality talents for social development and construction.

## **2. The significance of the construction of the integrated education model of “post, course, competition, certificate”**

The “post, course, competition, certificate” integration model is an innovative education model that integrates multiple elements of education such as job positions, courses, vocational competitions, vocational skills level certificates, and ideological and moral quality training, which can effectively promote the orderly education process in higher vocational colleges and universities, and stimulate students’ motivation and enthusiasm for learning while also continuously improve the nurturing mode and strengthen the effectiveness of nurturing in higher vocational colleges and universities <sup>[2]</sup>. In the “post, course, competition, certificate” integration of nurturing mode, higher vocational colleges and universities can realize the depth of integration between education and industry, such as higher vocational electronic information engineering technology can be closely integrated into the industry standards and job requirements into the construction of the curriculum system, which also means that the course teaching process is no longer limited to theoretical knowledge teaching, but pays more attention to students’ practical skills training and job adaptability training, so that students can adapt to the job requirements faster after graduation and grow up to be excellent talents in the professional field <sup>[3]</sup>. In addition, during the course of study, students can exercise their professional level and ability by participating in vocational skill level examinations, vocational skill competitions, and other forms. This process can not only enable students to obtain vocational skill level certificates and relevant award certificates, but also enable students to more fully adapt to the needs of industry development, improve their competitiveness in employment, and grow into high-quality talents needed for social development and construction. In addition, the “post, course, competition, certificate” can also strengthen the cultivation of students’ professional ethics and professional quality, so that through the integration of professional ethics in education and teaching, students can establish a correct career and employment outlook, and grow into composite talents required by the development of electronic information engineering technology.

## **3. The necessity of the construction of the integrated education model of “post, course, competition, certificate”**

### **3.1. Contributing to the deep integration of education and industry**

In the education of higher vocational colleges and universities, a “post, course, competition, certificate” integration of education model is built, which helps to realize the close connection of all aspects of education, so that the education process of higher vocational colleges is no longer simply limited to traditional theoretical knowledge teaching, but fully integrates social enterprise job demand, curriculum innovation design, vocational skill competition, vocational skill level examination, professional ethics and quality education, and other links. This can not only cultivate students’ practical skills and comprehensive level but also allow students to be more adaptable to the development of social enterprises for the demand for high-quality talents <sup>[4]</sup>. For example, students can put their theoretical knowledge into practice when they enter the actual position, and on this basis, students can learn and master the cutting-edge technology of the industry. In the stage of participating in the vocational skills competition, students can comprehensively use their theoretical knowledge and practical skills to achieve results, so that students can get a sense of achievement. In the stage of participating in vocational

skills level examination, students can obtain vocational skills level certification, which provides a solid guarantee for students' employment and practice in the future. The process of moral quality education can strengthen students' knowledge of vocational ethics, cultivate their correct vocational outlook and values, and help to improve the effectiveness of talent cultivation in higher vocational colleges and universities, which not only realizes the in-depth combination of education and industry but also meets the demand for high-quality talents in social development <sup>[5]</sup>.

### **3.2. Improving students' comprehensive quality and professional literacy**

The construction of the "post, course, competition, certificate" model helps to improve the overall quality and professionalism of students. In the "post, course, competition, certificate," students not only need to master a wealth of professional knowledge but also need to learn cooperation, communication, expression, problem-solving, etc. of "post, course, competition, certificate." In this process, through participation in competitions, students can exercise their own "post, course, competition, certificate" collaborative ability. By participating in vocational skill level examinations, students can master theoretical knowledge and practical skills more systematically; by participating in job practice, students can put theoretical knowledge into practice; by participating in course learning, students can expand their scope of knowledge; and by learning and understanding related knowledge of professional ethics, students can strengthen their comprehensive quality <sup>[6]</sup>. Therefore, the construction of the integrated education model of "post, course, competition, certificate" in electronic information engineering technology majors in higher vocational colleges is conducive to promoting the innovation of education level, cultivating students' professional quality, and improving the effectiveness and quality of personnel training.

## **4. Problems existing in the construction of the "post, course, competition, certificate" education model for electronic information engineering technology majors in higher vocational colleges**

In the professional education of electronic information engineering technology in higher vocational colleges, the construction of the education model of "post, course, competition, certificate" is a key link to improve the quality of personnel training, and can also ensure that students learn more professional knowledge and improve the effectiveness of personnel training in higher vocational colleges. At present, the electronic information engineering technology major in higher vocational colleges is also faced with a certain degree of problems and deficiencies in the construction of the "post, course, competition, certificate" mode, which affects educational effectiveness. Specifically, the problems are reflected in the following points.

Firstly, the job requirements and course content docking are not sufficient. In the construction of the integrated education mode of "post, course, competition, certificate" for electronic information engineering technology major in higher vocational colleges, the insufficient connection between job demand and course content is one of the important problems. The main problem is that there is a disconnect between the professional curriculum of higher vocational colleges and the current development trend of the industry, and the speed of updating and improving the curriculum teaching content has not caught up with the speed of development and progress of the industry, so it is difficult for the personnel training of higher vocational colleges to timely adapt to the demand for talents in the society, thus reducing the effectiveness of higher vocational personnel training <sup>[7]</sup>.

Secondly, the practical teaching link is relatively weak. Weak practical teaching link is a problem in the construction of "post, course, competition, certificate" education mode of electronic information engineering technology in higher vocational colleges and universities, which is mainly manifested in that higher vocational

colleges and universities do not pay attention to the strengthening of students' practical skills to exercise in the stage of advancing the teaching, and there are insufficient practical training equipment and relatively weak teachers. This is obviously difficult to provide sufficient practical opportunities for the students to enhance their vocational skills.

Thirdly, the integration of skill competitions with daily teaching is not high. Although higher vocational colleges and universities actively organize and carry out vocational competitions, there is also the phenomenon of poor integration between vocational skills competitions and daily teaching, which is mainly manifested in the fact that a part of the students are not willing to participate in vocational skills competitions; and the theme of vocational competitions is not closely combined with the content of daily teaching, which makes it difficult for students to achieve good results in the competitions, and has a certain impact on the motivation and power of the students.

Fourthly, the vocational skills level examination guidance is not comprehensive. It is an important problem that the guidance of vocational skills and grade examinations is not comprehensive. To a certain extent, it also affects the construction of the integrated education model of "post, course, competition, certificate" for electronic information engineering technology majors in higher vocational colleges, and it is difficult to strengthen the level of personnel training. The main performance is that teachers do not refer to the vocational skills level examination-related standards in the stage of education and guidance to students, and the content of education is not closely linked to the vocational skills level examination, which often makes it difficult for students to have rich gains in vocational skill level examinations, reducing the effectiveness and quality of talent training.

Lastly, the integration of moral education and professional education is not close. Although a series of moral education measures have been integrated into the education of higher vocational colleges and universities, there is also a lack of close integration between moral education and professional education. This is mainly manifested in the fact that the content of moral education simply stays in the cultivation of students' ideological and moral qualities, and does not actively carry out the professional moral training related to the concept of career, career development, etc., which reduces the effectiveness of moral education and the quality of personnel training.

## **5. The implementation strategy of the integrated education mode of "post, course, competition, certificate" for electronic information engineering technology majors in higher vocational colleges**

### **5.1. Curriculum system reform and teaching method innovation**

In order to effectively promote the construction of the "post, course, competition, certificate" integration of higher vocational colleges and universities electronic information engineering technology, the first task is to promote the reform of the curriculum system and innovative curriculum teaching methods, so as to bring more quality learning experience to students, stimulate students' learning motivation and enthusiasm, improve the education model, and ensure the orderly progress of talent training in higher vocational colleges<sup>[8]</sup>. For example, in the construction stage of "post, course, competition, certificate" education mode, higher vocational colleges need to actively meet the job demand, constantly improve and adjust the course teaching structure based on the job demand of enterprises in society, and at the same time increase the course teaching content related to the practical application of electronic information engineering technology. At this stage, cutting-edge technologies and emerging technologies of the industry can be introduced, and it is necessary to guide students to carry out on-the-job practice after learning theoretical knowledge, so as to strengthen students' adaptability to

the job and improve their professional and technical ability and level.

## **5.2. Construction and improvement of practical teaching system**

In the professional education of electronic information engineering technology in higher vocational colleges, it is necessary to actively promote the construction of a practical teaching system to construct the integrated education mode of “post, course, competition, certificate,” so as to strengthen students’ practical skills through the construction of practical teaching system. For example, in higher vocational colleges and universities, we need to strengthen the construction of training rooms and enrich the advanced training equipment, so as to provide students with a good practical environment <sup>[9]</sup>. Moreover, in higher vocational colleges, we also need to strengthen teaching management, formulate practical teaching plans that meet the needs of students to improve their skills, improve curriculum assessment standards, break the traditional mode of simply focusing on the inherent form of theoretical assessment, and pay equal attention to practical skills and theoretical investigation, so as to assess students’ practical skills. In addition, higher vocational colleges also need to actively establish a school-enterprise cooperation model, and arrange practical positions for students after they finish learning theoretical knowledge at school, so as to form a perfect practical teaching system through this measure, effectively train students’ practical operation skills, and complete the task of talent training in higher vocational colleges with high quality.

## **5.3. Skill competition and innovation and entrepreneurship platform construction**

In order to promote the orderly construction of the “post, course, competition, certificate” integrated education mode in higher vocational colleges and universities, it is necessary for higher vocational colleges and universities to vigorously set up skill competitions and innovation and entrepreneurship platforms. Through vocational skills competitions, students are guided to deepen their knowledge and understanding of professional knowledge and exercise their practical operation skills. Through the construction of an innovation and entrepreneurship platform, students are guided to integrate theoretical knowledge into practice and cultivate their innovation consciousness and innovation ability. For example, in higher vocational colleges, electronic information engineering technology professional skills competitions can be held regularly to encourage students to exercise their professional skills in the competition and to encourage and reward students who achieve good results in the competition, so as to motivate students to learn professional knowledge and strengthen practical skills <sup>[10]</sup>. Moreover, higher vocational colleges and universities also need to strengthen innovation and entrepreneurship education for students. Through the establishment of a special fund for innovation and entrepreneurship education and the establishment of an innovation and entrepreneurship education tutor and guidance mechanism, students are allowed to participate in innovation and entrepreneurship, so as to exercise students’ innovation ability and innovation consciousness, and improve the training effectiveness of electronic information engineering and technology professionals in higher vocational colleges.

## **5.4. Integration of vocational qualification certification and academic education**

In order to promote the orderly construction of the “post, course, competition, certificate” integrated education mode of electronic information engineering technology majors in higher vocational colleges and universities, it is also necessary to strengthen the integration of vocational qualification certification and academic education and to realize the mutual integration between professional education and vocational skills level exams on this basis. For example, some knowledge related to the vocational skills level examination can be integrated into the daily teaching stage, and the daily teaching content can be connected with the relevant standards and requirements of the vocational skills level examination so that students can obtain the vocational skills level certificate

while obtaining the academic qualification certificate. Helping students to complete the vocational skills level certification can also make students have a stronger competitiveness in employment, which promotes the quality and effectiveness of talent cultivation, and also enhances the quality and effectiveness of professional education, as well as the quality of education. This not only promotes the improvement of the quality and effectiveness of talent cultivation, but also highlights the specialization and professionalization of talent cultivation in higher vocational colleges and universities, and conveys a steady stream of high-quality talents for social development and construction.

### **5.5. Penetration and integration of moral education and professional quality education**

While strengthening students' professional skills, it is also necessary to pay attention to the cultivation of students' moral qualities. Only on this basis can students grow into compound talents who meet the needs of social development. In this process, it is necessary to infiltrate and integrate moral education and vocational education, and comprehensively use the case study teaching mode, role-playing teaching mode, etc., to guide the students to establish the correct vocational concepts and values, so as to let the students grow up in vocational ethics. Moreover, while imparting vocational knowledge to students, we should also pay attention to strengthening students' vocational ethics education, cultivating students' professional ethics and sense of responsibility, so as to promote students to grow into high-quality talents with professional skills and vocational ethics, and to meet the demand for excellent talents at the stage of China's social development.

## **6. Conclusion**

In summary, in the training of electronic information engineering technology professionals in higher vocational colleges and universities, the construction of the "post, course, competition, certificate" integrated education mode is an important initiative. Through this measure, we can fully integrate the various elements of higher vocational college education, realize the comprehensive training of students, achieve the educational effect of promoting the all-round growth of students, and send a steady stream of high-quality talents for the social development and construction of our country. Therefore, in the thesis, we put forward the countermeasures for the construction of "post, course, competition, certificate" integrated education mode of higher vocational electronic information engineering technology majors for common discussion and exchange.

## **Disclosure statement**

The authors declare no conflict of interest.

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